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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-------------------------|-------------|----------------------|---------------------|------------------|
| 10/586,146 | 07/14/2006 | Manabu Sato | 0670-7081 | 4190 |
| 31780 | 7590 | 12/16/2009 | EXAMINER | |
| ERIC ROBINSON | | | OBAYANJU, OMONIYI | |
| PMB 955 | | | ART UNIT | PAPER NUMBER |
| 21010 SOUTHBANK ST. | | | 2617 | |
| POTOMAC FALLS, VA 20165 | | | MAIL DATE | DELIVERY MODE |
| | | | 12/16/2009 | PAPER |

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/586,146

Applicant(s)

SATO, MANABU

Examiner

OMONIYI A. OBAYANJU

Art Unit

2617

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 September 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 July 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/G6/G6b)
- Paper No(s)/Mail Date 02/17/2009, 11/20/2006, 07/14/2006.

- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

Applicant's arguments filed 09/10/2009 have been fully considered but they are not persuasive.

Applicant argued and/or stated that with the current amendment submitted, Janky and Schmutz, either alone, or in combination do not teach or suggest the features of the claimed present invention.

In response, the examiner respectfully disagrees with Applicant's argument. After careful review of the amended claims, it is noted that the previously presented claims have been rearranged and/or rephrased to better recite the features of the present invention. However, the amended claims have not substantially changed the claimed limitations to overcome the rejections as previously presented in the Non-final Office Action (06/10/2009).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Janky (US Patent No. 5790527) in view of Schmutz (US Publication No. 20010031624).

As to **claims 1, 2, and 3**, Janky teaches a communication method used in a wireless communication system (abs) which includes both a repeater relay station of a wireless communication network using repeater system (fig. 2, #18) and a frequency division multiple access (FDMA) relay station of a wireless communication network using FDMA system (fig. 2, #14 and #12), the method comprising the steps of: receiving a call signal from a repeater wireless terminal (fig. 2, #16a) in the wireless communication network using repeater system, by the repeater relay station (fig. 2, #18); setting the forwarded call signal for a control signal at the FDMA relay station (col. 6, lines 40-50); transmitting the control signal to an FDMA wireless terminal (fig. 2, #16b) in the wireless communication network using FDMA system (fig. 2, #12 to #16b); detecting by the FDMA wireless terminal (dual mode radio) the call signal being from the repeater wireless terminal and a downlink frequency (e.g., f₂) (working channel) of the repeater relay station (fig. 2, #18), on the basis of the received control signal (col. 16, lines 64-col. 17, lines 1-4, and col. 6, lines 52-57); switching by the FDMA wireless terminal its own reception frequency from a downlink frequency (e.g., f₃) (control channel) of the FDMA relay station to the downlink frequency (e.g., f₂) of the repeater relay station (col. 10, lines 40-45, col. 16, lines

47-49, and col. 15, lines 58-62); relay-transmitting by the repeater relay station a voice signal contained in a signal transmitted by the repeater wireless terminal to the downlink frequency (e.g., f_2) (working channel) (col. 6, lines 12-33, and col. 16, lines 64-col. 17, lines 1-4); and receiving the voice signal from the repeater wireless terminal by the FDMA wireless terminal (fig. 2, #16b and fig. 13, FDMA Radios) whose reception frequency (control channel) (col. 6, lines 12-33) has been changed (switches) to the downlink frequency (e.g., f_2) (working channel) so that the FDMA wireless terminal communicates via the repeater relay station with the repeater wireless terminal (col. 10, lines 40-45, col. 16, lines 47-49, and col. 15, lines 58-62).

Janky does not teach connecting the repeater relay station to the FDMA relay station by a line to forward the call signal received by the repeater relay station to the FDMA relay station, and wherein the call signal to be transmitted from the repeater wireless terminal to the repeater relay station, the call signal to be transmitted from the repeater relay station to the FDMA relay station and the call signal to be transmitted from the FDMA relay station to the FDMA wireless terminal are carried by using respective distinct signal formats.

But Schmutz teaches connecting the repeater relay station (Translator repeater station, fig. 1, # 12.1) to the FDMA relay station (GSM Base Transceiver station, fig. 1, #15.1) by a line to forward the call signal received by the repeater relay station to the FDMA relay station (communication line, fig. 1, #19). Schmutz further teaches wherein the call signal to be transmitted from the repeater

wireless terminal (fig. 1, #18.1) to the repeater relay station, the call signal to be transmitted from the repeater relay station to the FDMA relay station and the call signal to be transmitted from the FDMA relay station to the FDMA wireless terminal (fig. 1, #18.2) are carried by using respective distinct signal formats (pg. 2, pp0021-pp0022).

Thus, it would have been obvious to one of ordinary skill in the art at time the invention was made to modify the teachings of Janky with the configuration of Schmutz to efficiently acquire a communication session between terminals in a wireless communication network with two different operating systems.

As to **claim 4**, Janky teaches wherein the signal format for the call signal from the repeater wireless terminal to the repeater relay station comprises a call classifier and a terminal identifier (col. 5, lines 40-50), the signal format for the call signal from the repeater relay station to the FDMA relay station comprises a synchronous signal pattern, a call classifier, a terminal identifier, a relay station identifier and information added by relay station (col. 6 lines 35-59), and the format for the call signal from the FDMA relay station to the FDMA wireless terminal comprises a synchronous signal pattern, system information and terminal control information (col. 6, lines 40-50 and col. 7, lines 35-50).

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to OMONIYI A. OBAYANJU whose telephone number is (571)270-5885. The examiner can normally be reached on Mon - Fri, 7:30 - 5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vincent P. Harper can be reached on 571-272-7605. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/O. A. O./
Examiner, Art Unit 2617

/VINCENT P. HARPER/
Supervisory Patent
Examiner, Art Unit 2617